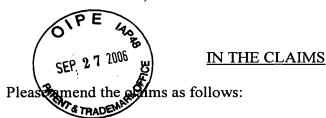
Application No. 10/628,357 Reply to Office Action of June 27, 2006



Claim 1 (Currently Amended): A method of connecting a mobile station with a base station via a radio link in a mobile communication system including a first base station capable of directional beam signal transmission and reception and a second base station incapable of directional beam signal transmission and reception, the method comprising:

setting different handover a first connection threshold values value for connecting the mobile station with the first base station being capable of a direction beam, and a second connection threshold value different from the first connection threshold value for connecting the mobile station with the second base station incapable of a directional beam, and setting a first disconnection and different handover threshold values value for disconnecting the mobile station with the first base station, and a second disconnection threshold value different from the first disconnection threshold value for disconnecting the mobile station with the second base station, so as to preferentially connect the mobile station to the first base station capable of a directional beam rather than to the second base station incapable of a directional beam.

Claim 2 (Previously Presented): The method as claimed in claim 1, wherein the preferentially connecting the mobile station to the first base station includes:

setting the different handover threshold values for connecting and disconnecting the mobile station with the first base station and the second station, respectively, when the mobile station undergoes handover.

Claim 3 (Previously Presented): The method as claimed in claim 1, wherein the preferentially connecting the mobile station to the first base station includes:

setting the different threshold values for connecting and disconnecting the mobile station with the first base station and the second station, respectively, when the mobile station is on standby and switches a connection destination thereof.

Claim 4 (Currently Amended): A radio network controller for controlling a radio link connection between a mobile station and a base station in a mobile communication system including a first base station capable of directional beam signal transmission and reception and a second base station incapable of directional beam signal transmission and reception, the radio network controller comprising:

a base station connection control unit configured to set different handover a first connection threshold values value for connecting the mobile station with the first base station being capable of a direction beam, and a second connection threshold value different from the first connection threshold value for connecting the mobile station with the second base station incapable of a directional beam, and setting a first disconnection and different handover threshold values value for disconnecting the mobile station with the first base station, and a second disconnection threshold value different from the first disconnection threshold value for disconnecting the mobile station with the second base station, so as to preferentially connect the mobile station to the first base station capable of a directional beam rather than to the second base station incapable of a directional beam.

Claim 5 (Previously Presented): The radio network controller as claimed in claim 4, wherein

the base station connection control unit sets the different handover threshold values for connecting and disconnecting the mobile station with the first base station and the second station, respectively.

Claim 6 (Previously Presented): The radio network controller as claimed in claim 5, wherein

the handover threshold value is defined as an absolute value of a difference between power of signals from a handover source base station and power of signals from a handover destination base station, and

the handover threshold value for connecting the mobile station with the first base station is larger than the handover threshold value for connecting the mobile station with the second base station.

Claim 7 (Original): The radio network controller as claimed in claim 5, wherein the handover threshold value is defined as an absolute value of a difference between power of signals from a handover source base station and power of signals from a handover destination base station, and

the handover threshold value for disconnecting the mobile station and the first base station is larger than the handover threshold value for disconnecting the mobile station and the second base station.

Claim 8 (Currently Amended): A mobile station in a mobile communication system including a first base station capable of directional beam signal transmission and reception

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and a second base station incapable of directional beam signal transmission and reception, the mobile station comprising:

a base station connection unit configured to set different handover a first connection threshold value for connecting the mobile station with the first base station being capable of a direction beam, and a second connection threshold value different from the first connection threshold value for connecting the mobile station with the second base station incapable of a directional beam, and setting a first disconnection and different handover threshold values value for disconnecting the mobile station with the first base station, and a second disconnection threshold value different from the first disconnection threshold value for disconnecting the mobile station with the second base station, so as to preferentially connect the mobile station to the first base station capable of a directional beam rather than to the second base station incapable of a directional beam.

Claim 9 (Previously Presented): The mobile station as claimed in claim 8, wherein the base station connection unit sets the different handover threshold values for connecting and disconnecting the mobile station with the first base station and the second station, respectively, when the mobile station is on standby and switches a connection destination thereof.

Claim 10 (Original): The mobile station as claimed in claim 9, wherein the threshold value is defined as an absolute value of a difference between power of signals from a switching source base station and power of signals from a switching destination base station, and

the threshold value for switching to the first base station is smaller than the threshold value for switching to the second base station.

Claim 11 (Original): The mobile station as claimed in claim 9, wherein the threshold value is defined as an absolute value of a difference between power of signals from a switching source base station and power of signals from a switching destination base station, and

the threshold value for switching from the first base station is larger than the threshold value for switching from the second base station.

Claim 12 (Original): The mobile station as claimed in claim 8, further comprising: a base station determination unit configured to identify and distinguish the first base station from the second base station.

Claim 13 (Original): The mobile station as claimed in claim 9, further comprising: a threshold value receiver configured to receive the threshold values.

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